

CLAIMS

- 1 An image display apparatus comprising:
 - a spatial light modulation element including a reflection electrode;
 - an illumination optical system including a polarization element and a light source, and adapted to illuminate the spatial light modulation element by the light source through the polarization element, and
 - a projection lens for forming an image of the spatial light modulation element,wherein reflection plane surface is disposed between the illumination optical system and the spatial light modulation element, and an optical path extending from the illumination optical system to the spatial light modulation element is bent by the reflection plane surface.
- 2 The image display apparatus as set forth I claim 1,
 - which includes a transparent optical block disposed between the projection lens and the spatial light modulation element,
 - wherein the transparent optical block is adapted so that one surface is caused to serve as a reflection plane surface for bending, by internal surface reflection, an optical path of illumination light extending from the illumination optical system to the spatial light modulation element.
- 3 The image display apparatus as set forth in claim 2,
 - wherein the transparent optical block includes an outgoing plane

surface for allowing remainder light of illumination light extending to the spatial light modulation element via reflection plane surface among light beams emitted from the illumination optical system to be emitted toward the outside of incident pupil of the projection lens.

4 An image display apparatus comprising:

a spatial light modulation element including a reflection electrode;

an illumination optical system including a polarization element, an integrator in which plural elements are arranged in a matrix form, and a light source, and serving to allow illumination light emitted from the light source to be obliquely incident onto the spatial light modulation element through the polarization element and the integrator to illuminate the spatial light modulation element; and

a projection lens for forming an image of the spatial light modulation element,

wherein the aspect ratio of respective elements of the integrator is contracted (reduced) in a direction of tilt with respect to the spatial light modulation element of the illumination light as compared to the aspect ratio of illumination range of the spatial light modulation element.

5 The image display apparatus as set forth in claim 4,

wherein when angle that the optical axis of illumination light emitted from the illumination optical system and display surface of the spatial light modulation element form is θ , the aspect ratio of respective elements of the integrator is caused

to be value multiplied by $\cos \theta$ with respect to direction of tilt relative to the spatial light modulation element of the illumination light as compared to the aspect ratio of the illumination range of the spatial light modulation element.